



Editorial Policy

The Editorial policy for each of the five sections of *Vision Research* is as follows:

Section 1, **Neurobiology**, will accept manuscripts on a broad range of experimental approaches which aim to understand the neuronal mechanisms that underlie vision. Relevant ideas include physiological optics, phototransduction, neurotransmitters, functional anatomy, electrophysiology, development and regeneration. The Editors seek submissions concerning structure and function at all levels of visual processing, including the eye, retina, central visual and integrative structures. Of special interest will be papers seeking out morphological and functional correlations at the single unit level or in groups of neurons forming specific structures such as orientation or colour modules in the cortex. Neuropharmacological papers on the mechanisms of visual information transmission through retinal or central synapses using recording *in vivo* or *in vitro* sliced or isolated cell preparations will be welcomed. In addition to papers on normal development of the visual pathway, papers dealing with reorganization of the retina or central visual centres following transplantation of neurons and/or glial cells are also encouraged. *In vivo* and *in vitro* studies examining the effects of growth factors in developmental, regenerative or reorganizing processes are expected. The Section Editors for Section 1 are **Yutaka Fukuda** (Japan) and **Sam Wu** (U.S.A.).

Section 2 welcomes papers which deal predominantly with the **Psychophysics** of vision in the mature, developing and ageing human visual system. Major topics in this section will include: orientation, motion, depth, colour, form, pattern and texture; binocular processes, spatial vision and stereopsis; adaptation, after-effects and induced effects; pre-attentive and attentive vision in man. These topics have been effectively covered by *Vision Research* for many years and they continue to form an exciting and now rapidly developing field. In addition to novelty and soundness of ideas and techniques, the Editors would emphasize clarity of presentation in text and figures as a main virtue in a field which is burdened by increasingly specialized concepts and methods. The Section Editors for Section 2 are **Dennis Levi** (U.S.A.) and **Davida Teller** (U.S.A.).

Section 3, **Behavioural Physiology and Visuomotor Control**, welcomes papers on vision in animals investigated with behavioural techniques, and studies that address the interfacing between vision and behavioural activities in the widest sense, in animals and human subjects. Eye movements are an elementary example of such a mutual relation: vision is used to control eye movements, while eye movements also effect vision. Thus, this section welcomes oculomotor studies of all kinds, including those concerned with reading, but also studies concerned with more general visuomotor processes such as the visual guidance of manipulation, locomotion and navigation, and in general the visual processes involved in the behaviour of subjects in space. Contributions addressing the evolutionary and developmental aspects of such processes are also encouraged. The Section Editors for Section 3 are **Eileen Kowler** (U.S.A.) and **Christa Neumeier** (Germany).

Section 4, **Computational Vision**, encourages manuscripts of a theoretical or computational nature useful to scientists pursuing experimental or theoretical approaches to vision. Contributions may include the design and analysis of computational models of visual processing; analysis of the statistics and structure of natural images; theoretical contributions that are based firmly on observations of biological vision systems or which make clear predictions that can be tested by observations on biological systems; models of neuronal networks based on biological observations. Contributions may address a range of aspects of vision from early processing mechanisms to higher level processes such as object recognition and interpretation. The Section Editors for Section 4 are **Ellen Hildreth** (U.S.A.) and **Michael Morgan** (U.K.).

Section 5, **Clinical Vision Sciences**, welcomes experimental studies in the area of visual science in which clinical material has been used to address an issue of basic research interest, or where basic research matters have been used to attack an issue of clinical importance, or where basic research may have, as yet unapplied clinical relevance. Animal studies involving electrophysiological, psychophysical, biochemical, anatomical, neurological, and imaging techniques with relevance to pathophysiological processes are welcome. Neither preliminary reports of work in progress nor brief accounts of single cases, except detailed scientific studies on single cases are acceptable. The Section Editors for Section 5 are **Ivan Bodis-Wollner** (U.S.A.) and **Eberhart Zrenner** (Germany).

HENK SPEKREIJSE
Chairman